

CLAIMS

1. A position indication device for indicating a position within a screen of a display device, the position indication
5 device comprising:

an indicator body that indicates a position within a screen of a display device;

a lens that is provided in the indicator body and focuses light that is incident from a position indicated by the
10 indicator body through a light-incident aperture of the indicator body;

an optical sensor that is provided in the indicator body and detects light focused by the lens; and

a light-proof member that is provided in the indicator
15 body and covers the lens and the optical sensor in such a manner that external light other than light from the light-incident aperture is not incident on the lens and the optical sensor.

2. The position indication device as defined by claim 1,

20 wherein the light-proof member covers the optical sensor in such a manner as to prevent the incidence of external light to all surfaces of the optical sensor, including a surface on which a signal terminal of the optical sensor is provided.

25 3. The position indication device as defined by claim 1,

wherein the light-proof member covers at least a board portion on which the optical sensor is mounted, of a board for

mounting the optical sensor.

4. The position indication device as defined by claim 2,
wherein the light-proof member covers at least a board
5 portion on which the optical sensor is mounted, of a board for
mounting the optical sensor.

5. The position indication device as defined by claim 1,
wherein:

10 the light-proof member is configured of an assembly of
a plurality of parts; and

a cut-out portion is provided in a connection portion
between parts of the light-proof member, in order to form a
through-hole for a signal terminal of the optical sensor.

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6. The position indication device as defined by claim 2,
wherein:

the light-proof member is configured of an assembly of
a plurality of parts; and

20 a cut-out portion is provided in a connection portion
between parts of the light-proof member, in order to form a
through-hole for the signal terminal of the optical sensor.

7. The position indication device as defined by claim 3,
25 wherein:

the light-proof member is configured of an assembly of
a plurality of parts; and

a cut-out portion is provided in a connection portion between parts of the light-proof member, in order to form a through-hole for a signal terminal of the optical sensor.

5 8. The position indication device as defined by claim 1, wherein:

the light-proof member is configured of an assembly of a plurality of parts; and

10 a protuberant portion is provided in a connection portion of a first part of the plurality of parts, and also a fit portion that fits with the protuberant portion is provided in a connection portion of a second part of the plurality of parts.

15 9. The position indication device as defined by claim 2, wherein:

the light-proof member is configured of an assembly of a plurality of parts; and

20 a protuberant portion is provided in a connection portion of a first part of the plurality of parts, and also a fit portion that fits with the protuberant portion is provided in a connection portion of a second part of the plurality of parts.

10. The position indication device as defined by claim 3, wherein:

25 the light-proof member is configured of an assembly of a plurality of parts; and

a protuberant portion is provided in a connection portion

of a first part of the plurality of parts, and also a fit portion that fits with the protuberant portion is provided in a connection portion of a second part of the plurality of parts.

5 11. The position indication device as defined by claim 5, wherein:

the light-proof member is configured of an assembly of a plurality of parts; and

10 a protuberant portion is provided in a connection portion of a first part of the plurality of parts, and also a fit portion that fits with the protuberant portion is provided in a connection portion of a second part of the plurality of parts.

12. The position indication device as defined by claim 1, 15 wherein:

the light-proof member covers a board portion on which the optical sensor is mounted, of a board for mounting the optical sensor; and

20 a second light-proof member is provided to prevent the incidence of the external light from a gap between the board and a slit provided in the light-proof member for the insertion of the board.

13. The position indication device as defined by claim 2, 25 wherein:

the light-proof member covers a board portion on which the optical sensor is mounted, of a board for mounting the

optical sensor; and

5 a second light-proof member is provided to prevent the incidence of the external light from a gap between the board and a slit provided in the light-proof member for the insertion of the board.

14. The position indication device as defined by claim 3, wherein:

10 the light-proof member covers the board portion on which the optical sensor is mounted, of the board for mounting the optical sensor; and

15 a second light-proof member is provided to prevent the incidence of the external light from a gap between the board and a slit provided in the light-proof member for the insertion of the board.

15. The position indication device as defined by claim 5, wherein:

20 the light-proof member covers a board portion on which the optical sensor is mounted, of a board for mounting the optical sensor; and

25 a second light-proof member is provided to prevent the incidence of the external light from a gap between the board and a slit provided in the light-proof member for the insertion of the board.

16. The position indication device as defined by claim 8,

wherein:

the light-proof member covers a board portion on which the optical sensor is mounted, of a board for mounting the optical sensor; and

5 a second light-proof member is provided to prevent the incidence of the external light from a gap between the board and a slit provided in the light-proof member for the insertion of the board.

10 17. The position indication device as defined by claim 12, wherein:

the light-proof member is configured of an assembly of a plurality of parts; and

15 the second light-proof member is a protuberant portion that is deformed by the insertion of the board into the slit provided in each part of the light-proof member and seals the gap between the slit and the board.

20 18. The position indication device as defined by claim 13, wherein:

the light-proof member is configured of an assembly of a plurality of parts; and

25 the second light-proof member is a protuberant portion that is deformed by the insertion of the board into the slit provided in each part of the light-proof member and seals the gap between the slit and the board.

19. The position indication device as defined by claim 14,
wherein:

the light-proof member is configured of an assembly of
a plurality of parts; and

5 the second light-proof member is a protuberant portion
that is deformed by the insertion of the board into the slit
provided in each part of the light-proof member and seals the
gap between the slit and the board.

10 20. The position indication device as defined by claim 15,
wherein:

the light-proof member is configured of an assembly of
a plurality of parts; and

15 the second light-proof member is a protuberant portion
that is deformed by the insertion of the board into the slit
provided in each part of the light-proof member and seals the
gap between the slit and the board.

20 21. The position indication device as defined by claim 16,
wherein:

the light-proof member is configured of an assembly of
a plurality of parts; and

25 the second light-proof member is a protuberant portion
that is deformed by the insertion of the board into the slit
provided in each part of the light-proof member and seals the
gap between the slit and the board.

22. The position indication device as defined by claim 1,
wherein:

the light-proof member covers the entirety of a board on which the optical sensor is mounted; and

5 a second light-proof member is provided to prevent the incidence of external light from a gap between a lead wire from the board and a lead hole provided in the light-proof member for the extraction of the lead wire.

10 23. The position indication device as defined by claim 1,
 wherein:

the optical sensor is installed directly within the light-proof member; and

a second light-proof member is provided to prevent the
15 incidence of external light from a gap between a lead wire from
a signal terminal of the optical sensor and a lead hole provided
in the light-proof member for the extraction of the lead wire.

24. A computer-usable information storage medium used in a
20 game system that comprises:

the position indication device as defined by any one of
claims 1 to 23;

game processing means that receives information from the position indication device and performs game processing based on the detected indicated position; and

image generation means that generates a game image in accordance with the game processing performed by the game

processing means,

wherein the information storage medium comprises a
program for implementing the above means on a computer.